

Lexus IS Retractable Hard-Top Convertible Offers Top-Down Expressiveness with Coupe-Inspired Styling

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- Convertible Top Opens and Closes In Less Than 21 Seconds
- Optional Intuitive Park Assist Stops Top Operation If Rear Obstacle Is Detected
- Noise, Vibration, Harness Characteristics Nearly Identical to IS Sedans

The all-new 2010 Lexus IS 350C and IS 250C hard-top convertibles give Lexus a coupe and convertible in the entry luxury segment for the first time. The IS C models combine the expressiveness of a convertible with the athletic styling of a coupe.

Sophisticated Retractable Hardtop Convertible

The IS250C and IS350C represent Lexus' second convertible and its first since the debut of the SC430 in 2001. Featuring a convenient single-switch operation, the new three-piece hard top provides open-air freedom with the top down without sacrificing the quiet and comfort of a coupe. Constructed primarily of lightweight aluminum, the hard top also provides surprising storage space but with low noise and increased security not typically found in soft-top convertibles. In addition, the top completely retracts with no elements remaining in view.

The four-link roof assembly, also made of aluminum for a lightweight design, provides smooth even movement. Engineered to operate in an easy, efficient manner, each component is motor driven with detection switches, allowing the control unit to know their exact position at all times. In addition to the two main roof panels being constructed of light-weight aluminum, the back window's reinforced glass construction also lends itself to reduced weight. Weather-strip changes in areas around the doors and windows ensure tight seals.

A roof-speed brake-control system decreases the roof speed especially as it approaches the end of the closing operation in either direction, ensuring an elegant and quiet movement. On models equipped with available Intuitive Park Assist (IPA), sonar sensors in the rear bumper will stop the movement of the luggage door at the start of operation if it detects an obstacle will interfere. Also, a visual warning will appear on the instrument panel if a detected obstacle may soon interfere with top operation.

When the IS convertible's top is opened or closed, the power windows will automatically lower if in the closed position, and raise back up when the operating switch is held. Also, when the top is up, the door windows automatically lower 15 mm when the door opens, and then raise back into a fully closed position when the door closes. This ensures the doors' clean open/close function while also maintaining a tight seal around the glass. The aluminum hard top features an automatic front lock assembly that provides the interior security not found in soft-top convertibles. When the top is stowed in the down position in the rear of the IS convertible, the lock assembly is engaged to keep the panel in a fixed, stable position.

Convertible Aerodynamics

The IS convertible has a best-in-class 0.29 drag coefficient (Cd). This is accomplished with the help of underbody covers below the engine (with aerodynamic steps), the full floor, and fuel-tank covers, as well as a rear-floor diffuser with vertical fin and airfoil. Other areas that contribute to the low Cd include the design shape of the outer mirrors, high-mount stop lamps, and the rear tailamps. Fender fairings before the front and rear tires reduce airflow into the wheel house, improving aero characteristics and reducing air turbulence.

The IS convertible's air conditioning system automatically adjusts for the outside temperature when the top is lowered, improving interior temperature consistency and comfort. The system adjusts the air outlets, temperature and air flow exiting the outlets. The airflow volume adjusts to outside temperature and vehicle speed, while the temperature control adjusts to outside temperature, amount of sunlight and vehicle speed. The system also includes a pollen filter and variable-control compressor.

Convertible Body Rigidity

The IS convertible's body structure has excellent rigidity and strength, achieved by effective structural changes and additions to the existing IS sedan platform. Additional bracing was implemented to help provide excellent handling control, ride comfort and body durability while also minimizing weight gain.

Areas that received modifications or additions include the rocker area; A and B pillar under structure; side collision crossmember, and upper and rear-floor crossmembers. In addition, underfloor braces were added both in the front and the rear.

The transformation to a convertible also required reevaluation of noise, vibration and harshness (NVH) characteristics in order to meet Lexus standards. All body and chassis revisions have gone through extensive testing to ensure that the IS250C and IS350C have nearly identical NVH characteristics as the IS sedans. High-rigidity damping materials and asphalt sheets have been added to help minimize vibration effects. Redesigned rear-suspension-mount bushings help reduce noise and vibration associated with the changes in body characteristics from a sedan to a convertible. Additional sound absorption and insulation materials have been optimally positioned to create a quiet, comfortable cabin.

Dual-Mode Redesign

The IS250C and IS350C's new exterior design has its lineage in the IS sedan but possesses its own dynamic styling, including unique characteristics when interchanging between convertible and coupe configurations. With the exception of the hood, all other body panels have been redesigned to blend seamlessly with the new three-panel folding roof.

The convex shoulder lines distinguish the convertible's profile, while the top-up configuration provides a sweeping cabin silhouette. With the top down, the belt-line draws up around the rear deck lid, providing a muscular look.

In the front, hood lines flow into a unique chrome grille shape, then continue down into an air inlet before flowing outward past the more distinctive elliptical fog-lamp design.

The rear view features a clean, continuous design, with flowing bumper corners and a strong bumper shape that flows inward towards the exhaust. All-new combination tail-lamp clusters feature LED lights and two distinct horizontal lines that emphasize breadth, while the LED brake light integrated within the standard rear spoiler imparts a sporty impression.

The IS convertible features two new wheels unique from the IS sedan line up. Standard 17-inch wheels utilize two multi-layered five-spoke patterns for a contemporary 10-spoke design with a clean liquid-graphite finish. Optional 18-inch wheels have an athletic five-spoke design with asymmetrical changes in shape and a liquid-graphite finish. Both feature the tire-pressure warning system found on the sedan models. In addition to standard all-season tires, an optional 18-inch wheel with run-flat tire is available without a spare, adding to the available luggage space.

Five colors common with the IS sedan are available on the convertible, Ultrasonic Blue Mica is shared with the ISF, and Cerulean Blue Metallic is new to the Lexus exterior color selection for 2010. Like the sedans, additional wet sanding is applied in mid-coat application to provide a premium finish.

Unique Interior Look

The IS convertible interior maintains the luxury touch points associated with the IS sport sedans, while new comfort and entertainment features provide a consistent atmosphere regardless of top configuration. Special attention was given to providing an attractive interior design when viewing the convertible externally. The door and side trim is fashioned to create continuity and continuous flow from front to back.

A four-seat configuration provides each passenger with their own comfort space, and the rear-seat console enhances the rear-passenger amenities with cup holders and storage. Soft padding on the sides of the console and the outer trim areas improve comfort. The rear headrests are retractable for improved visibility and the lever located on the front of the rear console can easily be accessed from the driver's seat. Rear-seat comfort is enhanced by shifting seat position inboard, providing for sizeable headroom.

Ten-way adjustable power front seats, including power lumbar support are standard, and the available heated/ventilated function has increased heating range to include the shoulder areas and increases airflow in ventilation function. Front-seat backs are scaled inward, and slim, leather seat-back pockets help to maximize rear-seat legroom.

The gauge cluster is similar to that of the IS sedan, but there are some additions on the IS convertible for style and function. A higher-contrast multi-information LCD, dial-color change for more contrast, and decreased surface-glass transmittance all enhance visibility when the top is down. The multi-information display also includes status of the hardtop while in transformation, providing a bar graph showing its progress. It also displays a warning to inform the driver if the roof is not completely open/closed, a rear obstacle may impede proper open/close operation, or if the open/close function is not available while the vehicle is in motion. Metallic trim around the two main gauges contribute to a premium look.

The interior adopts recycled materials in 13 various areas including door and side trim. The IS convertible has three interior trim color options, including two new color combinations. In addition to black leather interior, a new alabaster color is joined by a distinctive alabaster/blue contrast trim.

Dynamic Driving Performance

The IS250C and IS350C provide a consistent blend of driving performance and comfort in either convertible or coupe configuration. They share common double-wishbone front and multi-link rear suspension systems with the IS sport sedan models.

The double-wishbone front suspension received a number of changes to provide the handling control and ride comfort required for a convertible. The torsional rigidity of the suspension bushings was optimized, as was the spring constant on the coil springs, and the shock absorber damping force. The stabilizer shape and the Electric Power Steering (EPS) gear ratio were also revised to help provide improved control.

The multi-link rear suspension also received similar changes to suspension bushings, coil springs and shock-damping force. In addition, the rear-suspension tower was lowered with enhanced rigidity to help provide rear control and linear yaw response; it also provides improved trunk space.

Performance-Oriented Drivetrains

The IS convertible models feature the same powertrains as the IS sedans. The IS 350C's 3.5-liter V6 delivers exhilarating performance with outstanding 306 horsepower at 6,400 RPM along with 277 lb.-ft. of torque at 4,800 rpm. The IS 250C's 2.5-liter V6 engine has a great combination of fuel efficiency and performance. The IS 250C's V6 produces 204 horsepower at 6,400 RPM and 185 lb.-ft. of peak torque at 4,800 rpm. Both engines utilize aluminum cylinder blocks and heads, while employing dual Variable Valve Timing with intelligence (VVT-i), which controls timing on both the intake and exhaust camshafts.

A direct-type fuel-injection system provides a cooling effect in the cylinders, enabling the high compression needed to extract maximum energy from the fuel. Aside from its larger displacement, the 3.5-liter V6 differs chiefly in that it augments the direct fuel injection with port fuel injectors. In light- and medium-load conditions, these additional injectors help produce a precise burn, increasing power and efficiency, while reducing emissions. A dual exhaust system reduces backpressure at higher engine speeds. Like IS sedans, the IS250C and IS350C meet the Ultra-Low Emission Vehicle II (ULEV II) certification.

An advanced six-speed automatic transmission with steering-wheel-mounted paddle shifters is standard on the IS 350C. The IS 250 C comes with either a six-speed manual transmission or the paddle-shift, six-speed automatic transmission.

Easy Access Utility and Comfort

The new IS convertible emphasizes easy access and rear-seat comfort. In addition to front doors that are 11.8 inches longer than the IS sedans, two convenient fold-forward lock-release levers are standard on both sides of the front passenger seats, making it easier to operate from any location inside the vehicle. In addition, the passenger seat features a power slide button on the top of the seatback to ease rear seat ingress/egress. An available new automatic one-touch, easy-entry power-seat mechanism provides even easier egress and ingress through quick-acting, front-seat fold-and-slide activation. The two passenger doors also have three open-stopping positions (rather than the normal two) to add convenience in various parking situations. The IS C also is equipped with a standard power tilt and telescoping steering column to help the driver quickly get into a comfortable position.

The optional Intuitive Park Assist (IPA) system uses ultrasonic sensors to detect objects close to the car's front and rear bumpers, alerting the driver and showing distance to objects in the multi-information display within the speedometer. When equipped with the optional navigation system, information on objects detected in the rear are shown in greater detail on that system's seven-inch display via the backup camera.

The optional Pre-Collision System (PCS) is packaged with Dynamic Radar Cruise Control, which uses millimeter-wave radar to measure and help maintain a set distance from a vehicle traveling ahead. PCS relies on the radar sensor to detect obstacles in front of the car, and a PCS computer with sensor inputs from vehicle speed, steering angle and yaw rate is designed to determine whether a collision is unavoidable. In such a situation, PCS alerts the driver via sound and visual warnings while preemptively retracting front seat belts and pre-initializing Brake Assist so that increased braking will be applied the instant the driver depresses the pedal.

Standard Hill-start Assist Control helps prevent the vehicle from moving backward when the driver moves their foot from brake pedal to the accelerator. The system will also be available for the first time with the manual transmission.

The standard Lexus Premium Audio System features a six-disc, in-dash CD changer, and eight speakers. An equalizer system maintains the same acoustic field when the top is either open or closed, compensating for the natural loss of bass sounds when open. In addition to the 1/8-inch audio mini jack on the IS sedan, the IS convertible will also have a standard USB connector in the center console for interface with an iPod®. The audio system will not only play the music on the iPod, but it will also display information on the available navigation screen such as artist, album and song track.

Bluetooth® Audio wireless connectivity is another new feature for those customers with compatible devices. An integrated XM® satellite radio receiver (subscription required) offers a wide variety of programming, while standard hands-free voice recognition and Bluetooth® technology for models without optional navigation allow phone calls to be made and received while driving.

Lexus' latest Hard-Disk Drive (HDD) navigation system, with a new set-up display and increased audio-display tabs, is available on the IS convertible and is complete with a seven-inch VGA touch-screen, back-up camera, and XM® NavTraffic and NavWeather (subscription required). The navigation system also includes as standard on all navigation-equipped IS convertibles Lexus' latest casual-language voice recognition system, Voice Command, which builds upon the previous-generation system's functionality, adding more spoken-command flexibility. With Voice Command users avoid having to speak commands in a specific order. The Voice Command system also works to control many functions of the audio system, heating and air conditioning, and the navigation system.

A Mark Levinson® Premium Surround Sound Audio system, exclusive to Lexus, is available in conjunction with the optional navigation system. This 12-speaker audio system features discrete 5.1 multi-channel playback with 5.1-channel speaker architecture. Its nine amplifier channels provide 270 watts total output at 0.1 percent total harmonic distortion (THD). From 20-20,000hz, the Mark Levinson system plays conventional CDs and specially encoded DVD audio and DVD video discs, plus MP3/WMA-formatted CD-R/RW and DVD-R/RW. DVD movies can be viewed on the optional navigation system's seven-inch color touch screen when the parking brake is engaged.

Lexus Safety and Security

Standard Vehicle Dynamics Integrated Management System (VDIM) governs all of the vehicle's dynamic handling systems – the Anti-lock Braking System (ABS), Brake Assist (BA), Vehicle Stability Control (VSC) and Traction Control (TRAC) – employing them collectively and seamlessly to make corrections while helping provide higher dynamic capability. VDIM also interfaces with the electronic throttle control system. The IS convertible features large, ventilated four-wheel disc brakes with Anti-lock Braking System (ABS), Electronic Brake force Distribution (EBD) and Brake Assist (BA). The IS350C is equipped with 13.15-inch front and 12.20-inch rear rotors with aluminum four-piston front calipers to aid in heat dissipation and stopping power and reduce unsprung weight. The IS250C has 11.65-inch front and 12.20-inch rear rotors.

Passive-safety technology begins with a number of body-structure changes integrated in the IS250C and IS350C to help augment strength and torsional rigidity. Seatbelt pre-tensioners and force limiters are used for the front seats, while the rear seats adopt emergency locking retractor seatbelts with an automatic locking retractor.

In addition to the dual-front airbags, the Lexus Supplemental Restraint System (SRS) for the IS convertible includes new enlarged front-seat-mounted head and torso side airbags, and knee airbags for both the driver and the front passenger. The front-passenger airbag features two chambers, creating an indentation in the center impact area that helps to provide overall occupant protection.

The available High Intensity Discharge (HID) headlamps paired with the Adaptive Front-lighting System (AFS) helps to illuminate a curve as the driver steers into it.

The standard SmartAccess keyless entry and push-button-start/stop allows the driver to keep the access key fob in a pocket or purse. The standard HomeLink® programmable garage door opener also operates home security devices and other systems.

F-Sport Performance Accessories Available for IS C

The IS C F-Sport Performance Accessories include performance enhancing parts such as 19-inch forged alloy wheels, brake upgrades, suspension systems, air intake, exhaust systems and more. F-Sport Performance Accessories by Lexus U.S.A. are engineered by Toyota Racing Development (TRD). When installed by an authorized dealer, the accessories are fully warranted for 12 months or for the balance of the new car warranty, whichever is greater.

Lexus Enform™ and Safety Connect™

The Lexus IS C offers an all-new telematics system, Lexus Enform™ with Safety Connect™, available by subscription. Complimentary one-year trial subscriptions are included on all purchases of new Lexus vehicles equipped with these features. Both the Lexus Enform and the Safety Connect response center operate 24 hours a day, 7 days a week—every day of the year.

Safety Connect, the cornerstone of the services, is available on both non-navigation and navigation-equipped IS C and offers four safety and security features: Automatic Collision Notification, Stolen Vehicle Location, Emergency Assistance Button (SOS), and Enhanced Roadside Assistance, which adds GPS data to the already included warranty-based Lexus roadside service.

Lexus Enform, available only on navigation-equipped vehicles, includes all of the Safety Connect features and builds upon them with the premium services of Destination Assist and eDestination. Destination Assist agents are available via the on-board cellular equipment and can help drivers find a specific address, a business by name, or a type of business (e.g., gas station, movie theater, etc.), and even Zagat®-rated restaurants, and then send the coordinates to the navigation system for routing.

With eDestination, drivers can go online via LexusDrivers.com to save and sort destinations in up to 20 folders, each holding as many as 10 destinations. Then drivers can send the locations—up to 200 at a time—to their vehicle, where they will be available for download into the navigation system. Online, drivers can create personalized location names (e.g., “Favorite sushi,” “1 PM Appt,” “Kids’ doc,” etc.) and even list notes about their saved locations, all helping them see exactly the information they choose in the vehicle.

Lexus Insider™, a complimentary, opt-in service is also available without a subscription on all Lexus Enform-equipped vehicles. This feature offers in-vehicle audio casts that provide owners access to useful vehicle tips and event information, and insights into exclusive owners’ benefits – all designed to further enhance the Lexus experience.

XM – Beyond Radio

Lexus Enform vehicles are factory ready for subscriptions to a variety of innovative XM services. An integrated XM® satellite radio receiver is standard. Additionally, Lexus Enform vehicles feature XM NavTraffic® and XM NavWeather™ services. XM NavTraffic informs the driver of current traffic conditions with real-time traffic displays. When traffic problems are detected the navigation system alerts the driver so that the route can be adjusted. XM NavWeather provides near real-time weather conditions as well as spoken and nav-screen forecasts, both based on official National Weather Service data.

Lexus Enform also provides the platform for XM® Sports and Stocks, which features in-vehicle updates on sports and stocks so drivers can stay connected to their favorite teams and investment data while on the road. XM Sports provides game results and schedules for up to five personally selected national league sports teams while XM Stocks supplies data for up to 10 personally selected stocks. After inputting their selections, drivers can access the reports either by the navigation system, or by using the voice command system, adding a new level of flexibility.

XM services require separate XM subscriptions. The XM Sports and Stocks service is included with an XM® radio subscription. All XM services offer complimentary 90-day trial subscriptions.

Warranty

All new Lexus vehicles come with a 48-month/50,000-mile basic limited warranty with roadside assistance for 48-months/unlimited miles. Powertrain and restraint system coverage is provided for 72 months/70,000 miles.

Corrosion perforation protection is covered for 72 months, regardless of mileage.

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